# Western Energy Company

Thirty- Five Years of Reclamation at the Rosebud Mine

# Western Energy Company

- Colstrip was founded in 1923
- Mining started in 1924
- Coal used for rail locomotives
- Mining ceased in 1958 (diesel locomotives)
- Montana Power purchased reserves/town in 1966
- WECO started mining in 1968
- Subsidiary of Westmoreland mining LLC since 2001.
- In production 36 years.
- More than 370 million tons of coal have been produced to date.

## Montana Mine Permitting History

- 1973 Montana Strip and Underground Mine Reclamation Act
- 1977- Surface Mine Control and Reclamation Act
- 1982 Montana State Program approved by the Office of Surface Mining

# Current Coal Mine Regulation and the Permitting Process

- Pre-mine surveys
- Mine Plan
- Post-Mine Topography (PMT)
- Permit submittal
- Permit review and approval
- Annual reporting

# NP Spoils







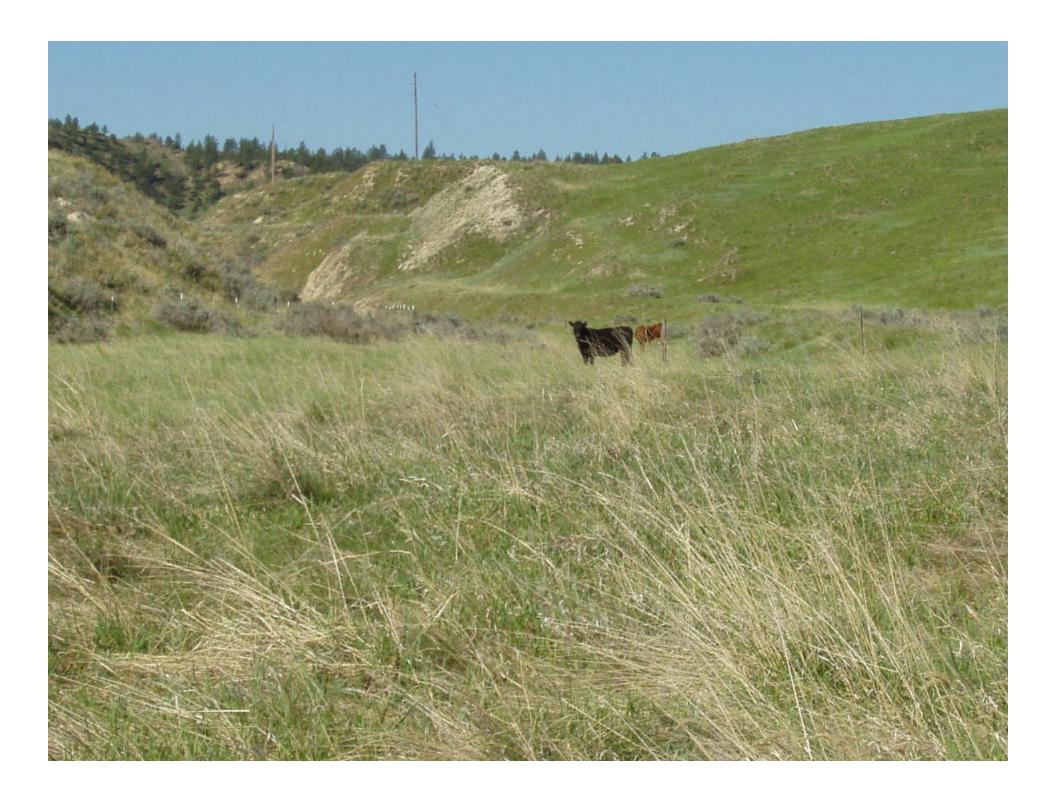


#### Pit 6

- July, 1968 WECo shipped its first load of coal from Pit 6.
- 1974 Operations move west to Pit 6 extension.
- 1975 Pit 6 Extension was mined out.
- 1975-1976 Final Reclamation

#### Pit 6

- Reclamation Procedures
  - No topsoil savaged or replaced
  - Minimal spoil regrading
  - Through drainages constructed
  - Non-native grass species allowed in seed mix











#### Area E

- Mining Summary
  - Mining began in 1976
  - Mining completed in 1987
  - Final reclamation completed in 1999

#### Area E

- Reclamation Summary
  - Uniform soil replacement
  - Slopes regraded to 5:1 or less
  - Native seed mixes became a requirement
  - Geomorphic drainage designs are required
  - Bluff extensions permitted as experimental practice











#### **Current Reclamation**

- Steeper slope reclamation to tie into adjacent native slopes preserving existing sandstone outcrops and ridges and trees
- Topsoil depth variance to promote vegetation diversity (shrubs and trees) for wildlife habitat
- Pit impoundment permitted









## Resource Development Economics

- Employment
  - 79 Salaried
  - 286 Hourly average wage \$24.00/hour
- Payroll >\$21 million
- Taxes
  - Production taxes to Montana >\$18 million
    - >\$14 million Severance Taxes
    - >\$300K Resource Indemnity Trust Taxes
    - >\$3.5 million Gross Proceeds Taxes

# Restoration Opportunities

- Final Bond Release Restore the land to the landowner
  - Minimum time required by regulation is 10 years from seeding.
- Problem
  - Process takes much longer.
  - Very few acres eligible based on the time requirement have been released.

# Restoration Opportunities

The reclaimed acres meet requirements for sustainable grazing and wildlife use, but may not meet an ecological measurement from a reference area due to age of the reclamation i.e. diversity of shrub species, reproduction of shrubs or trees, mix of warm/cool season grasses.

#### Potential Solution

 Establishment of reasonable success standards based on the post-mining land use i.e. vegetation production for grazing land or shrub/tree density for wildlife habitat.